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Division of Safety Systems and Risk Assessment
Office of the New Reactors
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: Industry Comments on Proposed Interim Staff Guidance "Probabilistic Risk Assessment Information to Support Design Certification and Combined License Applications"

Project Number: 689

Dear Ms. Mrowca:

This letter provides industry comments on NRC's Proposed Interim Staff Guidance (ISG) "Probabilistic Risk Assessment Information to Support Design Certification (DC) and Combined License (COL) Applications," dated February 12, 2008. High-level comments are contained in this letter, while additional detailed comments are enclosed separately. Our high-level comments address definition of risk "significant" for advanced reactors, potential issues with endorsement of seismic and fire PRA requirements, and of Design Acceptance Criteria, PRA maintenance for DC applicants, and expectations for per review of PRAs.

Definition of Risk "Significant" for Advanced Reactors

The latest revision of ASME PRA standard allows for more flexibility in defining "significant" than the discussion contained in the Proposed ISG Section 2d. The criteria of a 5% change to the CDF meriting distinction as a "significant impact" is not appropriate given the small absolute CDF values of advanced reactors. In these designs, the CDF is low because the risk is balanced over the spectrum of sequences, and as a result, nearly all components and all sequences meet this threshold. For example, in the ESBWR PRA, more than 30,500 cutsets, including some with a frequency of less than $2x10^{-14}$, would be considered significant under such a definition. For a DC or COL, the definition of significance should be derived from the safety goals rather than from the individual PRA calculation.

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Potential Issues with Endorsement of Seismic and Fire PRA Standards

Performing a Seismic PRA requires as-built plant information in order to be meaningful, and any NRC-endorsed consensus standard needs to address an alternative approach for DC applications since as-built information will not be available for DC applications. Similarly, the Fire PRA standard currently under evaluation by the NRC requires the use of information that is not available at the time of a DC application; an alternative approach for DC applications also needs to be identified in any NRC-endorsement of such a standard. The ISG should state that when endorsing consensus standards that require as-built information, NRC expects to provide an alternative approach to the standards.

Use of Design Acceptance Criteria

The Proposed ISG does not address the fact that many DC applications contain Design Acceptance Criteria (DAC) as allowed by the Commission. For systems that employ DAC, typically digital I&C and human factors, it is not possible to create PRA models because, by definition, there is no design information at the time of certification. The ISG, and subsequently RG 1.206, should state that design PRAs are not expected to model parts of the design covered by DAC.

PRA Maintenance for DC Applicants

Item 8 under "Proposed Interim Staff Guidance" should be clarified with respect to commencement of PRA maintenance for design certifications. We agree that the design PRA should be updated to reflect changes to the standard design resulting from the NRC design certification review. However, consistent with current practice, after the certification is issued, design certification applicants should not be required to update or otherwise maintain the approved design PRA except as appropriate in connection with a design certification amendment request.

Expectations for Peer Review of PRAs

Item 4.d under "Proposed Interim Staff Guidance," second sentence should begin, "<u>Peer review of the design PRA is not required prior to application, however, i</u>f a peer review was conducted…." Moreover, this section should be clarified to apply only to DC applicants and COL holders, not COL applicants. DC PRAs referenced by COL applicants have been previously reviewed and approved by NRC in an SER, and their technical adequacy should not be subject to further NRC review or the standards of RG 1.200 in connection with a COL application review. Rather, NRC COL application review of the plant-specific PRA should be focused on and limited to the matters discussed in RG 1.206, Section C.III.19, i.e., assessment of the applicant's systematic approach for developing the plant-specific PRA from the DC PRA**,** including resolution of COL action items, identification and screening of design changes or departures for inclusion in the plant-specific PRA model, etc. Applicability to COL holders pertains to the 10 CFR 50.71(h) requirement to develop a level 1 and a

level 2 PRA covering those initiating events and modes for which NRC-endorsed consensus standards on PRA exist one year prior to the scheduled date for initial loading of fuel.

The industry appreciates the opportunity to comment on this proposed ISG. If you have any questions or require additional information, please contact me or Victoria Anderson (vka@nei.org; 202.739.8101).

Sincerely,

Biff Bradley

Enclosure